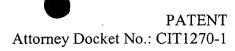
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IN THE CLAIMS

Please enter claims 1, 13, and 15 and new claims 40-42.

- (Currently amended) An electrical structure comprising:

 a silicon-containing material having a surface; and
 an organic layer chemically bonded to the surface of the silicon-containing material,

 wherein an electrical property of the electrical structure is significantly ehanged improved compared to a same structure without the organic layer.
- 2. (Original) The electrical structure of claim 1, wherein the organic layer affects the electrical property within the silicon-containing material.
- 3. (Original) The electrical structure of claim 2, wherein the electrical property is selected from a group consisting of a surface recombination velocity, carrier lifetime, electronic efficiency, voltage, device capacitance, contact resistance, and resistance of a doped region.
- 4. (Original) The electrical structure of claim 1, wherein the organic layer comprises a hydrocarbon.
- 5. (Original) The electrical structure of claim 1, wherein the organic layer comprises a polymer.
- 6. (Withdrawn)
- 7. (Withdrawn)
- 8. (Withdrawn)

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- 9. (Original) The electrical structure of claim 1, wherein the silicon-containing material is substantially monocrystalline.
- 10. (Original) The electrical structure of claim 1, wherein the silicon-containing material is polycrystalline.
- 11. (Original) The electrical structure of claim 1, wherein the silicon-containing material is substantially amorphous.
- 12. (Original) The electrical structure of claim 1, wherein a portion of the silicon-containing material immediately adjacent to the organic layer has a porosity no greater than approximately 30 percent.
- 13. (Currently amended) A process for forming an electrical device comprising:

 providing a silicon-containing material having a surface; and
 forming an organic layer chemically bonded to the surface of the siliconcontaining material, wherein an electrical property of the electrical device is
 significantly different improved compared to a same device if the organic layer is not
 formed.
- 14. (Original) The process of claim 13, wherein the organic layer affects the electrical property within the silicon-containing material.
- 15. (Currently amended) The process of claim 14, wherein the electrical property is selected from a group consisting of an surface recombination velocity, carrier lifetime, electronic efficiency, voltage, contact resistance, and resistance of a doped region.
- 16. (Original) The process of claim 13, wherein the organic layer comprises a monolayer.

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17. (Original) The process of claim 13, wherein the organic layer comprises a polymer.

18-20. (Withdrawn)

21. (Original) The process of claim 13, wherein forming the organic layer comprises:

activating the surface of the silicon-containing material to form an activated surface;

reacting the activated surface with a chemical, wherein during the reaction, a hydrocarbon group becomes chemically bonded to the silicon-containing material.

- 22. (Original) The process of claim 21, wherein activating comprises halogenating the surface of the silicon-containing material to form the activated surface.
- 23. (Original) The process of claim 22, wherein the hydrocarbon group has no more than nine carbon atoms.
- 24. (Original) The process of claim 23, wherein the hydrocarbon group is an alkyl group.
- 25. (Original) The process of claim 21, wherein the hydrocarbon group is an allyl group.
- 26. (Original) The process of claim 21, further comprising forming a polymer layer from the allyl group.
- 27. (Original) The process of claim 21, wherein the hydrocarbon group is an alkoxide group.
- 28. (Original) The process of claim 13, wherein the silicon-containing material is substantially monocrystalline.

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29. (Original) The process of claim 13, wherein the silicon-containing material is polycrystalline.

30. (Original) The process of claim 13, wherein the silicon-containing material is substantially amorphous.

31-39. (Withdrawn)

40. (New) An electrical structure comprising:

a silicon-containing material having a surface and at least one electrode, wherein the silicon-containing material is capable of conducting electric current, and an organic layer chemically bonded to the surface of the silicon-containing material, wherein an electrical property of the electrical structure is significantly improved compared to a same structure without the organic layer.

- 41. (New) The electrical structure of claim 1, wherein the structure without the organic layer comprises a silicon-containing material having a surface, wherein the surface is a hydrogen terminated surface.
- 42. (New) The electrical structure of claim 1, wherein the structure without the organic layer comprises a silicon-containing material having a surface, wherein the surface is an oxidized surface.